

ACCESSION NR: AP4041853

the carriers. There is no rigorous theory of carrier scattering in thin semiconductor layers but approximate calculations show that the scattering on the surface of the layer and on the boundaries between individual crystallites can greatly reduce the mobility. This distinguishes the produced films from single crystals of cadmium sulfide and probably explains the dependence of the electric conductivity on the layer thickness. Orig. art. has: 5 figures.

ASSOCIATION: None

SUBMITTED: 00

ENCL: 03

SUB CODE: 88

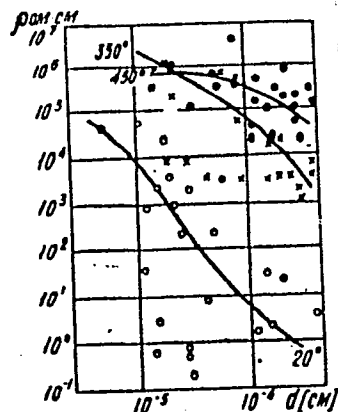
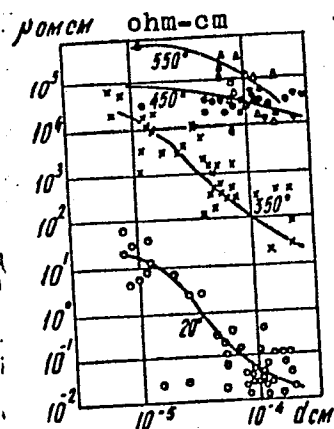
NR REF SOV: 002

OTHER: 007

Card 3/6

ACCESSION NR: AP4041853

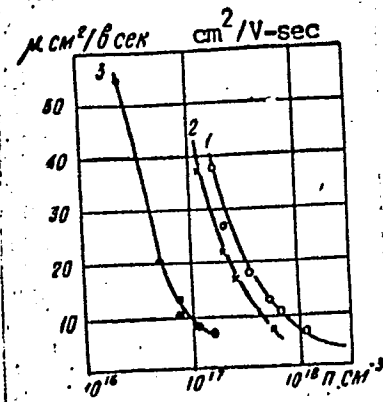
ENCLOSURE: 01



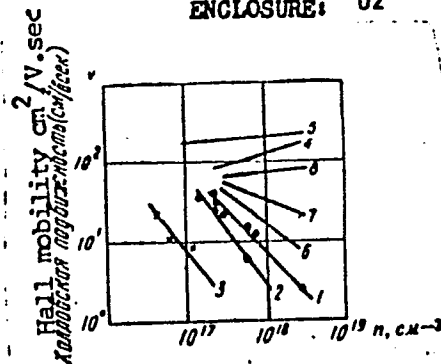
Dependence of resistivity on the thickness of cadmium sulfide films obtained in the following manner: Left - by sputtering the initial powder in an argon atmosphere on substrates heated to 20, 350, 450, and 550°C. Right - by sputtering in a hydrogen sulfide atmosphere on specially heated substrates, and also on substrates heated to 350 and 450°C

Card 4/6

ACCESSION NR: AP4041853



ENCLOSURE: 02

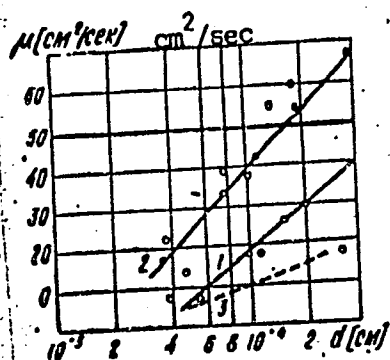


Dependence of carrier mobility on their density in cadmium sulfide. Left - obtained by vacuum sputtering and having different resistivities. Right - 1, 2, 3 - experimental data on films, 4, 5 - data on single crystals obtained elsewhere, 6, 7, 8 - theoretical curves for several densities.

Card 5/6

ACCESSION NR: AP4041853

ENCLOSURE: 03



Dependence of carrier mobility in cadmium sulfide films on their thickness. 1 - films sputtered in vacuum on heated substrates (180C); carrier density $2.3 \times 10^{17} \text{ cm}^{-3}$. 2 - films sputtered in argon atmosphere on substrates heated to 260C; carrier density $2.6 \times 10^{18} \text{ cm}^{-3}$. 3 - theoretical dependence of carrier mobility on sample thickness.

Card 6/6

SHALIMOVA, K.V.; TRAVINA, T.S.; POTAPOV, Yu.V.; STAROSTIN, V.V.

Electric properties of polycrystalline cadmium sulfide
films. Izv. vys. ucheb. zav.; fiz. no. 3:134-139 '64.
(MIRA 17:9)

SHALIMOVA, K.V.; TRAVINA, T.S.; Stopachinskiy, V.B.

Nature of the optical absorption of polycrystalline cadmium
sulfide films. Izv. vys. ucheb. zav.; fiz. no. 3:139-143 '64.
(MIRA 17:9)

1. Moskovskiy energeticheskiy institut.

23809

S/020/61/138/001/013/023
B104/B201

26.2421

AUTHORS: Shalimova, K. V., Travina, T. S., and Golik, L. L.

TITLE: Optical absorption of polycrystalline CdS layers

PERIODICAL: Doklady Akademii nauk SSSR, v. 138, no. 1, 1961, 90-92

TEXT: The cadmium sulfide layers submitted to an investigation by the authors were prepared by sputtering on glass or quartz bases in vacuo, in argon or hydrogen sulfide atmosphere. As may be seen from results presented graphically in Figs. 1 and 2, the absorption spectra are complicated. It has not been possible on some of the films to obtain the required optical density for a given spectral region, the instrument being too little sensitive in certain cases. The sections of the respective curves are indicated by points in the diagrams. In most of the specimens concerned, the absorption could be measured from $\lambda = 250$ m μ on; in some of them in the shorter-wave region and with an absorption maximum at 230 m μ . Absorption in the visible region amounts to some percents of that in the ultraviolet. It is inferred from the different kinds of absorption in the region of 300 - 350 m μ that absorption is in this case caused by impurities.

Card 1/4

13809

Optical absorption of polycrystalline...

S/020/61/138/001/013/023
B104/B201

In the investigation concerned, the impurities were free Cd and S atoms arising from dissociation in the process of the specimen production. As is shown by the authors in a thorough discussion, excess Cd atoms are the most manifest here. Results show that specimens prepared in vacuo, argon-, and hydrogen-sulfide atmospheres all have the same complicated absorption spectrum. The kind of absorption must therefore be the same. All the specimens have an absorption maximum at $\lambda = 230 \text{ m}\mu$. A number of more or less clearly marked maxima (320 m μ , 420 m μ , 490 m μ) caused by excess Cd atoms are found in the region of 300 - 550 m μ . It is shown in a brief discussion that in the abovementioned spectral range electrons in the impurity centers are transferred from the normal level to an excited level by the energy of the exciting light. Cd atoms have the following three excitation levels in the CdS lattice: 3.85; 2.94, and 2.52 ev. There are 2 figures and 4 references: 2 Soviet-bloc and 2 non-Soviet-bloc.

X

ASSOCIATION: Moskovskiy energeticheskiy institut (Moscow Institute of Power Engineering)

PRESENTED: December 26, 1960, by V. N. Kondrat'yev, Academician

SUBMITTED: December 20, 1960
Card 2/4

9,4160
26.2421

23831
S/020/61/138/002/014/024
B104/B207

AUTHORS: Shalimova, K. V., Travina, T. S., and Rezvy, R. R.
TITLE: Photoconductivity of polycrystalline cadmium-sulfide layers
PERIODICAL: Akademiya nauk SSSR. Doklady, v. 138, no. 2, 1961, 334-337

TEXT: The authors studied the photoconductivity of polycrystalline CdS layers in a broad range of wave lengths of the exciting light. The production methods of the layers were considered in this connection. The layers were produced by sputtering onto insulating base layers (glass, quartz) in vacuum ($5 \cdot 10^{-5}$ mm Hg), in argon atmosphere and hydrogen sulfide atmosphere (1.0 - 0.5 mm Hg). The base layer temperatures ranged between room temperature and 550°C, the films attained a thickness of between $2 \cdot 10^{-6}$ and $2 \cdot 10^{-4}$ cm. 600 specimens were prepared. Studies were carried out by means of a ~~3MP-3~~ (ZMR-3) mirror monochromator with quartz lens; a ~~DKCL-1000B~~ (DKSSH-1000B) xenon direct-current valve served as light source. The specimens were subjected to light pulses of a frequency of 36 ± 0.5 cps. The electrical plant consisted of an electric measuring stage, a broad-band amplifier, a millivoltmeter and an ~~EO-7~~ (EO-7) oscilloscope. All measure-

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23831

S/020/61/138/002/014/024
B104/B207

Photoconductivity of polycrystalline...

ments were made in the linear part of the characteristic of the specimens. The photocarrier life-time τ of some specimens was determined. No photo-sensitivity was found to exist in specimens, produced by sputtering CdS in vacuum and argon, whose base layer was at room temperature. Layers sputtered in a vacuum onto a base layer with a temperature of 150°C, showed also no photoconductivity. The resistivity of these layers was $10^{-2} - 1$ ohm·cm. Specimens prepared in hydrogen-sulfide atmosphere and which had a resistivity of 1 - 10 ohm·cm, were also not photoconductive. Photocurrents occurred, however, in specimens with a resistivity of 100 ohm·cm. Specimens sputtered onto a base layer pre-heated to more than 300°C, showed a stable photoconductivity. This holds for all three kinds of atmosphere. The conditions under which the layers had been produced exerted no influence upon photoconductivity when the base layers were pre-heated to 450°C. The results of Figs. 1 and 2 show that the photo-current depends in a complex manner on the wavelength of the exciting light. Two maxima occur in the 225-700 mμ range. The maximum of the less-sensitive specimens lies in the visible range ($\lambda = 510$ mμ), while the highly sensitive specimens possess a broader maximum in the UV. According to the authors' measurements, the photocarrier life-time determined from

Card 2/5

Photoconductivity of polycrystalline...

2001
S/020/61/138/002/014/024
B104/B207

the drop of light stream on interruption is $(1-6) \cdot 10^{-3}$ seconds. As the Figs. indicate, τ is practically independent of the wave length, except for the ranges in which the photoconductivity is not particularly large. In these ranges, life-time increases somewhat. Furthermore, the spectral distribution of the photoconductivity is independent of the layer thickness and the temperatures of base layer and medium. Photoconductivity depends, however, on the resistance of the layer. Resistance and photosensitivity of the layers increase with rising base layer temperature. There are 2 figures and 18 references: 5 Soviet-bloc and 13 non-Soviet-bloc.

ASSOCIATION: Moskovskiy energeticheskiy institut (Moscow Institute of Power Engineering) X

PRESENTED: December 26, 1960, by V. N. Kondrat'yev, Academician

SUBMITTED: December 8, 1960

Card 3/5

ACC NR: AT6033658

SOURCE CODE: UR/0000/66/000/000/0400/0406

AUTHOR: Travina, T. S.; Abbyasov, Z.

ORG: none

TITLE: Certain properties of film diode structures based on CdS under d-c and a-c voltages 27

SOURCE: Voprosy plenochnoy elektroniki (Problems in thin film electronics); sbornik statey. Moscow, Izd-vo Sovetskoye radio, 1966, 400-406

TOPIC TAGS: semiconducting film, semiconductor rectifier, *VOLT AMPERE CHARACTERISTIC, PHOTO DIODE, CADMIUM SULFIDE, DIELECTRIC LOSS*

ABSTRACT: Dielectric Au-CdS-Te-Au film diodes obtained by the vacuum-method evaporation (at 5×10^{-7} mm Hg) were tested in a wide range of frequencies (100 cps to 200 kc). It was found that the direct branches of voltampere characteristics depend on current variations, which are limited by space charge in the presence of a large number of deep traps. The relationship of the reverse branches of these characteristics is more complex than that of the Schottky emission. Capacity increased in photosensitive diode samples, probably because of the presence of a photo-dielectric effect in the semiconductor layer of CdS. Cadmium sulfide in such structures contains many traps which sharply increase capacity and dielectric losses. This, in turn, limits the range of operating frequencies of such diodes, and impedes tests of their operation. Orig. art. has: 4 figures and 2 formulas.

SUB CODE: 09, 20/ SUBM DATE: 27Jun66/ ORIG REF: 002/ OTH REF: 001

Card 1/1

UDC: 539.216.2.537.311

SHALIMOVA, K.V.; TRAVINA, T.S.; GOLIK, L.L.

Optical absorption of polycrystalline layers of CdS. Dokl. AN SSSR
138 no.1:90-92 My-Je '61. (MIRA 14:4)

1. Moskovskiy energeticheskiy institut. Predstavleno akademikom
V.N.Kondrat'yevym.
(Cadmium sulfide)

SHALIMOVA, K.V.; TRAVINA, T.S.; REZVYY, R.R.

Photoconductivity of polycrystalline layers of cadmium sulfide.
Dokl.AN SSSR 138 no.2:334-337 My '61. (MIRA 14:5)

1. Moskovskiy energeticheskoy institut. Predstavleno akademikom
V.N.Kondrat'yevym.
(Cadmium sulfide crystals—Electric properties)

TRAVINA, Vera, slesar'

How we are preparing for the glorious anniversary. Rabotnitsa 35
no.6: . 2 of cover Ja '57. (PLRA 10:8)

1.Leningradskiy zavod "Elektrosila".
(Electric machinery)

TRAVINA, V.F.

TUROVA, A.D.; TRUTNEVA, Ye.A.; TRAVINA, V.F.

Some plants used in popular medicine. Farm. i toks. 20 no.2:53-54
Mr-Ap '57. (MLRA 10:8)

1. Otdel farmakologii (zav. - prof. A.D.Turova) Vsesoyuznogo nauchno-
issledovatel'skogo instituta lekarstvennykh i aromaticeskikh
rasteniy

(PLANTS,

medicinal, used in popular med. (Rus))

SINITSYN, N.M.; ZVYAGINTSEV, O.Ye.; TRAVKIN, V.F.

Extraction of complex ruthenium nitrosopentahalides with aliphatic amines. Dokl. AN SSSR 160 no.2:370-372 Ja '65. (MIRA 18:2)

1. Institut obshchey i neorganicheskoy khimii im. N.S. Kurnakova
AN SSSR. Submitted July 8, 1964.

TRAVINE, A. J.

"Composes aridiniques - produits d'issue de composes antimalariques. V." by Maguidson,
O. J. and Travine, A. J. (p 243)

SO: Journal of General Chemistry (Zhurnal Obsheei Khimii) 1941, vol 11, no 1.

TRAVINICHEV, (Commander)

Essay on the Struggle against Submarines; Naval Fleet, State Mil. Publishing House,
1938.

TRAVINICHEV, A.

"Methods of Developing Weapons to Combat Submarines Based on the Experience of War," Morskoy Sbornik, Official Journal of the Soviet Fleet, Apr 1930, p. 55-74.

TRAVININ, I.S., inzh.

Causes of a steam boiler explosion. Bezop.truda v prom. 5
no.4:12-13 Ap '61. (MIRA 14:3)
(Boiler explosions)

YUDOVICH, S.Z.; TRAVININ, V.I.

Measuring forces occurring on rolls of a 450 mill stand during
the rolling of certain brands of steels. Trudy Zapor. mashinostroi.
inst. 4:93-99 '59. (MIRA 17:1)

YUDOVICH, S.Z.; ABRAMOV, V.V.; GABUYEV, G.Kh.; FRANTSOV, V.P.; SMOLYAKOV,
V.F.; SYPKO, A.V.; TRAVININ, V.I.; POTAPOVA, V.P.

Effect of the method of smelting and processing on the quality of
the DI-1 heat-resistant stainless steel. Stal' 25 no.8:752-753
Ag '65. (MIRA 18:8)

TRAVININ, V.I.

CHEKMAREV, A.P.; YUDOVICH, S.Z., kandidat tekhnicheskikh nauk; TRAVININ, V.I.

Guide rounds on small-shape mills. Metallurg no.11:27-29 N '56.
(MLRA 10:1)

1. Deystvitel'nyy chlen Akademii nauk USSR (for Chekmarev). 2. Nachal'-
nik prokatnoy laboratorii (for Yudovich). 3. Inzhener prokatnoy la-
boratorii zavoda "Dneprospetsstal'." (for Travinin).
(Rolling mills)

AUTHOR: Zabaluyev, I. P., Travinin, V. I. and Kovaleva, M. A. 133-10-15/26
Engineers.

TITLE: The Technology of the EI437A Heat-resisting Alloy Rolling.
(Tekhnologiya Prokatki Zharoprochnogo Splava EI437A.)

PERIODICAL: Stal', 1957, No.10, pp. 919-923 (USSR).

ABSTRACT: The development of the rolling conditions for forged semis of the above alloy (squares 95 mm) into rounds of 32 and 35 mm is described. Operating practice giving a satisfactory yield of good metal with required mechanical and heat resistance properties and macro and micro-structure was established. In conclusion it is stated that in order to improve further heat resisting properties of the above alloy more investigation on heating and rolling practice are necessary. There are 4 tables and 7 figures.

ASSOCIATION: Dneprospetsstal' Works. (Zavod Dneprospetsstal').

AVAILABLE: Library of Congress

Card 1/1

L 2364-66 EWT(m)/EWA(d)/EWP(t)/EWP(k)/EWP(z)/EWP(b)/EWA(c) MJW/JD/JM/ 3
UR/0133/65/006/008/0752/0753
669.187.26
55
53
B

ACCESSION NR: AP5019947

AUTHORS: Yudovich, S. Z.; Abramov, V. V.; Gabuyev, G. Kh.; Frantsov, V. P.;
Smolyakov, V. P.; Sytko, A. V.; Travnikov, V. I.; Potapova, V. P.

TITLE: Effects of smelting and working methods on the properties of heat resistant
stainless steel DI-1

SOURCE: Stal', no. 8, 1965, 752-753

TOPIC TAGS: stainless steel property, stainless steel smelting, hot rolling,
forging/ DI 1 steel alloy, 20Kh15N3MA steel alloy

ABSTRACT: The effects of smelting and hot working methods on the properties of
stainless steel DI-1 (20Kh15N3MA) were investigated. The metal was melted in 20-ton
arc furnaces, poured into 2850 and 1000 kg ingots, part of which were hot rolled and
part forged into 170- to 180-mm diameter rods. Part of the smelt was electroslog
remelted and also forged or hot rolled into rods. During forging the ingots were
heated to 1160-1180C, reduced to 200 x 200 mm blanks (850-900C), slowly cooled to
100-150C, reheated to 1160-1180C for final forging into rods (final temperature,
850-900C), and annealed at 660C. For hot rolling the blanks were placed at 750-
800C in a recovery furnace. It was found that after remelting the oxide and sulfide
Card 1/2

L 2364-66

ACCESSION NR: AP5019947

2

content in DI-1 dropped from ball 4 and 2 (coarse scale) to ball 1.0-1.5 and 0.5 respectively. The α -phase content also decreased as did the O_2 (by a factor of 2-3) and H_2 (factor of 2) contents. The properties of the arc melted (DI-1) and resmelted (DI-1Sh) steels after heat treatment were $\sigma_B = 102.5 \text{ kg/mm}^2$, $\delta = 12\%$, $a_K = 6.0 \text{ kg/cm}^2$ and 107, 16.5, and 6.2 respectively. The type of hot working method (forging or hot rolling) had no appreciable effect on any of the properties, but in both cases plasticity dropped sharply for working temperatures above 12000 (because of increased α -phase formation). Orig. art. has: 2 figures.

ASSOCIATION: none

SUBMITTED: 00

ENCL: 00

SUB CODE: MM

NO REF SOV: 000

OTHER: 000

BVK

Card 2/2

TRAVINOV, P.I.

[Manual for students entering technical schools] Spravochnik dlia postupaiushchikh v tekhnikumy trudovykh rezervov. Moskva, Vses. uchebno-pedagog.izd-vo Trudrezervizdat, 1956. 56 p. (MLRA 10:9)

1. Russia (1923- U.S.S.R.) Glavnoye upravleniye trudovykh rezervov.
(Technical education)

TRAVINOV, V.S., inzh.

Computing the depths of scouring in mountain rivers. Gidr, stroi.
33 no.5:40-41 My '63. (MIRA 16:5)

(Rivers)

TRAVINOV, V.S., inzh.

Hydraulic calculations of natural mountain streams. Gidr.
stroil. 30 no.7:47-48 J1 '60. (MIRA 13:7)
(Hydraulics)

POLAND, Medicine - Current Veterinary Work May 51

"Scientific Session of the State Veterinary Institute at Pulawy, Poland." A. Travinskii, ("Medycyna Weterynaryjna" No 11, 1950)

"Veterinariya" Vol XXVIII, No 5, pp 61, 62

Prof A. Travinskii, in reviewing activities under current Six-Year Plan, indicated that problems of highest importance are methods for combating sterility of farm animals, study of vet virus diseases and methods for combating them, and introduction of USSR methods (Skryabin's)

LC 182182

POLAND, Medicine - Current Veterinary Work (Contd) May 51

for fighting helminth infections. Other important problems include measures against equine infectious anemia and development of methods for applying sp vaccines against hydrophobia.

LC

182182

TRAVINSKIY, A.

TRAVINSKIY, A.

Banks and Banking

Effectiveness of bank control, Den. i kred., 11, No. 4, 1952.

Monthly List of Russian Accessions, Library of Congress, July 1952. Unclassified.

TRAVINSKIY, A.

Controllershship

Effectiveness of bank control, Den. i kred., 11, No. 4, 1952.

Monthly List of Russian Accessions, Library of Congress, July 1952. Unclassified.

KULESH, G.; TRAVINSKIY, A.; KTSAYAN, B.; ROZUMYANSKAYA, R., ekonomist

Economic work of a bank. Den. i kred. 21 no.3:24-30 Mr '63.
(MIRA 16:3)

1. Nachal'nik planovo-ekonomicheskogo otdela Khabarovskoy krayevoy kontory Gosbanka (for Kulesh). 2. Upravlyayushchiy Leninogorskim otdeleniyem Gosbanka (for Travinskiy). 3. Starshiy inspektor gorodskogo upravleniya Odesskoy oblastnoy kontory Gosbanka (for Ktsayan). 4. Gorodskoye upravleniye Odesskoy oblastnoy kontory Gosbanka (for Rozumyanskaya).
(Banks and banking) (Industrial management) (Auditing and inspection)

TRAVITSKAYA, E. G.

TRAVITSKAYA, E. G. -- "Study of the Effects of Gas Corrosion on Wear-Resistance of the Parts of the Cylinder-Piston Assembly of Diesel Tractor Engines." (Dissertations for Degrees in Science and Engineering Defended at USSR Higher Educational Institutions) Min Higher Education USSR, Leningrad Agricultural Inst, Leningrad, 1955.

SO: Knizhnaya Letopis' No. 31, 30 July 1955

*For the Degree of Candidate in Technical Sciences.

AUTHOR: Travitskaya, E.O., Candidate of Technical Sciences. 349

TITLE: Gas corrosion of materials of the components of the cylinder-piston group of I.C. Engines. (Gazovaya korroziya materialov detaley tsilindro-porshnevoy gruppy dvigatelei vnutrennego sgoraniya.)

PERIODICAL: "Energomashinostroenie", (Power Machinery Construction), 1957, No. 3, pp. 22 - 24, (U.S.S.R.)

ABSTRACT: The results are described of experimental investigation of the heat resistance of cast iron, which is applied for manufacturing liners of cylinders and pistons of certain diesel engines. The experiments comprise investigation of the materials of the cylinder liners, pistons and piston rings of the diesel engines D-54 and KDM-46 for the purpose of establishing the relation between the wear and the heat resistance. The chemical compositions of the investigated cast iron specimens are given in Table 1, p.22. The specimens enumerated in this table were investigated at the temperatures 500, 650 and 800 °C, in an atmosphere of carbon dioxide, oxygen and air in the dry as well as in the humid state. All the gases used in the experiments were purified. The speed of oxidation was measured by periodic weighing of the specimens without removing them from the gaseous medium. For this purpose, a set-up was

Gas corrosion of materials of the components of the 349
cylinder-piston group of I.C. Engines. (Cont.)

used which consisted of a vertical furnace with a thermal regulator and a quartz tube, 1 000 mm long and 65 mm dia., was inserted into the working space. The temperature was controlled by a thermocouple, the hot joint of which was located inside the quartz tube in the zone of distribution of the specimen. In all the experiments, the gas was fed at the uniform rate of 2.5 litres per hour and the blowing of the gas was continued during the weighing process. The results are plotted in 4 graphs and numerical values are also given in Table 2, p. 24. The experiments showed that an increase in the silicon content from 1.85% to 2.87% with a simultaneous increase of the carbon content from 2.1 to 3.5% brings about an increase of the corrosion resistance of the cast iron.

4 graphs, 2 tables. There are 2 Russian references.

00513R001756510014-1

AUTHOR: Tsibulskaya, E.I., Candidate of Technical Sciences

TITLE: Oxidation-corrosion of aluminum alloys in an atmosphere of sulfur dioxide

SOURCE: Bozhenko korrozii i dalgateley vnutrennykh sgoraniya i gazoturbiny, ust. avtor. Vsesoyuznaya nauchno issledov. obshchestv. Moskva, Mashin. 1964, 17 p. 133

TEXT: Gasoline feed in an internal-combustion engine may form metallic compounds which, upon frictional removal by moving engine parts, may become wear-producing abrasives. Therefore, the rate of the action of oxide films on cylinder and piston surfaces of internal combustion engines is of substantial interest. In the tests reported in the paper, specimen plates made of 5 Al-based materials (concrete, cast-iron, etc.), specially measured and weighed, were simultaneously placed in a constant flow of dry sulfur dioxide at a constant temperature. The constant of the corrosion rate was determined by a method involving the difference of the squares of the radii of the corrosion products. The corrosion rate was determined in the range of 100 to 1000 hr. The corrosion rate was determined in the range of 100 to 1000 hr.

Card 1/2

On the corrosion rate of aluminum alloys...

5/750-01 000/001 11/11/11

data for various Al alloys show that the corrosion rate (following an initial 10- to 15-min period) is higher during the first 2.5 hr. of exposure than subsequently. This phenomenon is attributed to the growing protective film of the initially formed film of corrosion products which inhibits subsequent diffusion of the corrosive gas into the alloy. The conspicuously unfavorable corrosion characteristics of Dural are attributed to the absence in it of Si and the presence in it of a metal more chemically active as Mg. The corrosion rate of the other Al alloys is evaluated in terms of their composition, and the desirability of additional investigations and developmental efforts toward the improvement of the corrosion resistance of Al alloys under combustion in a sulfur-bearing atmosphere is stated. There are 10 references and 3 Russian-language Soviet references.

ASSOCIATION: None given.

C. 11/11/11

KUL'MAN, Avgust Gustavovich; REBINDER, P.A., akademik, retsenzent;
GLADILOVICH, B.R., dots., retsenzent; TRAVITSKAYA, E.O.,
dots., retsenzent; OZEROV, V.N., red.; CHELYSHKIN, Yu.I.,
red.; DEYEVA, V.M., tekhn. red.; BALLOD, A.I., tekhn. red.

[General chemistry] Obshchaya khimiya. Moskva, Izd-vo sel'khoz.
lit-ry, zhurnalov i plakatov, 1961. 566 p. (MIRA 14:12)
(Chemistry)

34878

S/081/62/000/003/037/090
B156/B102

18.12.10

AUTHOR: Travitskaya, E. O.

TITLE: Corrosion rates in sulfur dioxide of aluminum alloys

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 3, 1962, 321, abstract
3I152 (Zap. Leningr. s-kh in-ta, v. 85, 1961, 87-89)

TEXT: Research into the corrosion rates (CR) of five types of Al-alloy at 425°C in an atmosphere of dry SO₂ has shown that at the start of the process (for ~1.5 hr) all specimens have higher CR than later in the heating process. A1 (D1) duralumin is found to be most oxidizable, owing to its increased Mg content (1.2-1.8%). It has been established that increasing the Si content to 6% makes Al-alloys more heat-resistant. [Abstracter's note: Complete translation.]

Card 1/1

S/137/62/000/003/147/191
A052/A101

18.12.10
AUTHOR: Travitskaya, E. S.

TITLE: On the rate of corrosion of aluminum alloys in the sulfur dioxide atmosphere

PERIODICAL: Referativnyy zhurnal, Metallurgiya, no. 3, 1962, 79, abstract 3I506 ("Zap. Leningr. s.-kh. in-ta", no. 85, 1961, 87-89)

TEXT: The corrosion of various Al alloys (the chemical composition is specified) at 425°C in the dry SO₂ atmosphere was investigated. The rate of oxidation constants of the samples is computed. At the beginning of the process (during 1.5 hours of roasting) the rate of corrosion of the samples is higher than during the further roasting. An increased Si content raises the heat-resistance of Al alloys subjected to a protracted roasting in the SO₂ atmosphere. It is pointed out that the alloy used at present for the piston of the KΔH-46 (KDM-46) internal-combustion engine has a lower heat-resistance compared with the alloys of Al2 (Al2) and AMU₁ (AMTs) type. ✓B

N. Yudina

[Abstracter's note: Complete translation]

Card 1/1

BOROZDINA, A.A., kand. med. nauk; TRAVKIN, A.A.

Compensatory-adaptive mechanisms in patients with unilateral
arthrosis deformans of the hip joint. Ortop., travm. i protez.
26 no. 10:15-20 O '65. (MIRA 18:12)

1. Iz Tsentral'nogo instituta travmatologii i ortopedii (dir. -
chlen-korrespondent AMN SSSR prof. M.V. Volkov). Adres avtorov:
Moskva A-299, ul. Pridorova, dom 10, Tsentral'nyy institut
travmatologii i ortopedii. Submitted March 17, 1965.

SOV/19-58-6-246/685

AUTHORS: Bashilov, A.A., Stolor, A.I., Afanas'yev, K.F.,
and Travkin, A.I.

TITLE: A Method of Electric Dehydration and Salt-
Elimination from Crude Oil with the Use of
Electromagnetic Vibrations (Sposob elektro-
degidratsii i obessolivaniya nefiti s pomoshch'-
yu elektromagnitnykh kolebaniy)

PERIODICAL: Byulleten' izobreteniy, 1958, Nr 6, p 56/57
(USSR)

ABSTRACT: Class 23b, 1₀₅. Nr 113641 (580469 of 13 July
1957). Submitted to the Committee for In-
ventions and Discoveries at the Ministers
Council of USSR. A method as specified in the
title, for processing oil emulsions containing
high quantities of water up to 40% and increas-
ing the efficiency of the dehydration and salt-

Card 1/2

SOV/19-58-6-246/685

A Method of Electric Dehydration and Salt-Elimination from
Crude Oil with the Use of Electromagnetic Vibrations

elimination process, consisting in the use of an oscillation circuit composed of a high-frequency transformer and a variable capacitance and producing high-frequency resonance vibrations on the electrodes of a dehydrator; with a high voltage of up to 300,000 volt on the electrodes permitting a widened inter-electrode space.

Card 2/2

TRAVKIN, I., Geroy Sovetskogo Soyuza, kapitan 1 ranga zapasa

We joyfully returned to base. Starsh.-serzh. no.2:30-32 F '61.

(MIRA 14:7)

(World War, 1939-1945--Naval operations--Submarine)

TRAVKIN, Ivan Vasil'yevich, kapitan 1 rango, Geroy Sovetskogo Soyuza;
~~PUZYREVA, T.P., red.;~~ STREL'NIKOVA, M.A., tekhn.red.

[In the waters of the grey Baltic] V vodakh sedoi Baltiki.
Moskva, Voen.izd-vo M-va obor.SSSR, 1959. 133 p. (MIRA 12:11)
(Baltic Sea submarine warfare)

GERMAN, A.H., inzh.; TRAVKIN, M.H., inzh.

Automatic supply of air to the boiler of an oil-pressure
system. [Trudy] LMZ no.10:333-342 '64. (MIRA 18:12)

TRAVKIN, M.P.

Accumulation of substances inhibiting sprouting in seeds with low
germinating force. Biul. Glav. bot. sada no.29:78-80 '57.

(MIRA 11:1)

1. Chuvashskiy gosudarstvennyy pedagogicheskiy institut.
(Seeds) (Growth inhibiting substances)

PAPORKOV, Mikhail Alekseyevich; TRAVKIN, M.P., redaktor; VEDENYEV, Ye.A.,
tekhnicheskii redaktor

[Work with young naturalists in the Nikolo-Kormskaya seven-year
school] Iunnatskaia rabota v Nikolo-Kormskoi semiletnei shkole.
Moskva, Gos. uchebno-pedagog. izd-vo Ministerstva prosveshcheniia
RSFSR, 1954. 70 p. (MLRA 8:7)
(Yaroslavl Province--Nature study)

TRAVKIN, M.P. (Cheboksary)

A simple method for preparing distilled water. Khim.v shkole 12
no.5:65 S-O '57. (MIRA 10:10)

(Water, Distilled)

USSR / Plant Physiology. Growth and Development.

I

Abs Jour: Ref Zhur-Biol., No 2, 1959, 6001.

Author : ~~Travkin, M. P.~~

Inst : Main Botanical Garden, AS USSR.

Title : Storage of Sprout-Inhibiting Substances in Seeds
of Reduced Germination Abilities.

Orig Pub: Byul. Gl. botan. sada. AN SSSR, 1957, vyp. 29,
78-80.

Abstract: Batches of seeds (of five grams each) having different germinating abilities were extracted with 50 ml. of distilled water for 24 hours with subsequent filtration of the seeds. As a test item, seeds of spring wheat of the Lutoscens 62 variety with a germination ability of 93% and a high sprouting energy were used; they were soaked in an extract for 24 hours and germinated on wet filter

Card 1/2

USSR / Plant Physiology. Growth and Development.

I

Abs Jour: Ref Zhur-Biol., No 2, 1959, 6001.

Abstract: paper in Petri dishes. Extracts of seeds of reduced germinating abilities strongly inhibited the sprouting of wheat seeds. The inhibitory action of extracts of old seeds was stronger than that of fresh seeds. Extracts of fresh seeds of phacelia, millet, lupino and tomatoes almost did not contain inhibitory substances. Extracts of timothy and onion seeds showed distinct inhibitory action. -- Ye. A. Yablonskiy.

Card 2/2

TRAVKIN, M. P.

Problem of the effect of antibiotics on plants. Uch.zap.Chuv.
gos.ped.inst. no.7:156-159 '59. (MIRA 13:9)
(Plants, Effect of antibiotics on)

TRACKING

TRAVKIN, Mikhail Prokhorovich; TSVETKOVA, Ye.A., red.; KREYS, I.G.,
tekhn.red.

[Entertaining experiments with plants] Zanimatel'nye opyty
s rasteniyami. Moskva, Gos.uchebno-pedagog.izd-vo M-va prosv.
RSFSR, 1960. 122 p. (MIRA 14:2)
(Botany--Experiments)

TRAVKIN, M.P.

Apparatus for fractional extraction of proteins from plant material.
Biul.Glav.bet.sada no.23:102-103 '55. (MIRA 9:7)

1.Moskovskiy gosudarstvennyy pedagogicheskiy institut imeni V.I.
Lenina. (Proteins) (Distillation, Fractional)

BLAGOVESHCHENSKIY, A.V.; TRAVKIN, M.P.

Absorbers for sulfur dioxide liberated by Kjeldahl's combustion
method. Biul.Glav.bot.sada no.22:101-102 '55. (MLRA 9:5)

1. Glavnyy botanicheskiy sad Akademii nauk SSSR i Moskovskiy
gosudarstvennyy pedagogicheskiy institut imeni V.I. Lenina.
(Sulfur dioxide) (Absorption)

TRAYKIN, Mikhail Prokhorovich; NEKHLIYUDOVA, A.S., red.; TSYPPPO,
R.V., tekhn.red.

[Role of plants in the cycle of substances in nature;
a manual for teachers] Rol' rastenii v krugovorote
veshchestv v prirode; posobie dlia uchitelei. Moskva,
Gos.uchebno-pedagog.izd-vo M-va prosv.RSFSR, 1958.

95 p.

(Plants)

(MIRA 12:6)

TRAVKIN, N.

"Gornyak" cutter-loader works continuously. Mast. ugl. 3 no.2:6-7
F '54. (MLRA 7:3)

1. Mashinist kombaina shakhtoupravleniya No.5-13 kombinata Voroshilov-
gradugol'. (Coal mines and mining)

TRAVKIN, N.A.

Glass partitions for shower stalls. Adm.-byt. komb. ugol'.
shakht no.5:81-83 '62. (MIRA 17:8)

1. Dongiproshakht.

BARABASHKIN, I.I.; TRAVKIN, V.S.

Toothed roller core bit. Razved. i okh. nedr 30 no.2:33-38
F '64. (MIRA 17:8)

1. TSentral'noye konstruktorskoye byuro Ministerstva geologii
i okhrany nedr SSSR.

15-57-3-3849

Translation from: Referativnyy zhurnal, Geologiya, 1957, Nr 3,
p 193

AUTHORS: Matveyev, G. I. Travkin, V. S.

TITLE: The Construction of a Bit Which Helps in Maintaining
the Gauge of Drill Holes (Konstruktsiya dolota, uluch-
shayushchaya kalibrovku skvazhin)

PERIODICAL: Novosti neft. tekhniki. Neftepromysl. delo, 1956, Nr 6,
pp 8-10

ABSTRACT: All cutting bits "lose" in diameter because of wearing
of the peripheral teeth, and the drill holes acquire
the form of a cone tapering downward. Consequently,
when a new bit is lowered the shaft of the hole must be
enlarged, which leads to premature wear on the cutting-
tool bearing. The Oil Drilling Division of the All-
Union Scientific Research Institute has made several
experimental bits with strengthened bearings. They
allow only a minimum slippage of the head of the peri-
pheral teeth in the cutting tool. In planning the bit,

Card 1/2

15-57-3-3849

The Construction of a Bit (Cont.)

the minimum angle for the teeth was taken as $10^{\circ}30'$. The angle of inclination of the shank to the axis of the bit was taken as 50° . In the new bits the points of the cutting tool, which gauge the hole, are so close to each other that the diameter of the hole is uniform throughout. Industrial testing has shown that footage of cutting with the bit is increased on the average from 18 to 20 percent. During the testing it was observed that the diameter of the hole remained constant. The whole series of bits used for enlarging the drill hole were lowered to the bottom of the hole one after the other without encountering an obstruction.

Card 2/2

M. G. M.

KUROCHKIN, G.A.; TRAVKIN, V.S.; VLADISLAVLEV, Yu.Ye.; ANTONOV, N.V.;
GUREVICH, E.M.; SHIT, Ye.E.; PETROPAVLOVSKIY, B.P.; ACHKASOV,
N.I.; BORMOTIN, I.M.

Inventions. Gor.zhur. no.2:74-75 P '63. (MIRA 16:2)
(Mining machinery---Technological innovations)
(Earthmoving machinery---Technological innovations)
(Railroads---Rails)

TRAVKIN, V.S.; BARABASHKIN, I.I.

Introduction of small-diameter core bit rollers. Biul.tekh.tekon.
inform.Gos.nauch.-issl.inst.nauch.i tekhninform. 17 no.11:19-24
N '64. (MIRA 18:3)

TRAVKIN, Yu. Ye.

Adjustment of machine tools in automatic lines according to
wear tables. Mashinostroitel' no. 1:28 Ja '66 (MIRA 19:1)

L 29075-06 GD-2

ACC NR: AP6018149

SOURCE CODE: UR/0187/65/000/001/0093/0093

AUTHOR: Travkina, L.

ORG: none

TITLE: New Moscow-Berlin television cable

SOURCE: Tekhnika kino i televideniya, no. 1, 1965, 93

TOPIC TAGS: TV network, TV equipment

ABSTRACT: At 2.20 PM on 5 Nov [64], the official opening of the new Moscow-Katowice-Prague-Berlin television cable was broadcast on television in the USSR, Poland, Czechoslovakia and East Germany. This day marked the placing in operation of another transmission line that permits the exchange of television programs along the socialist countries belonging to the Inversion system.

The television cable, with a total length of about 3,000 km, makes it possible to increase the number of television broadcasts exchanged among the USSR, Poland, Czechoslovakia and East Germany, and also to improve the technical quality of these broadcasts.

The Moscow-Berlin television cable has a duplex path by means of which two-way simultaneous transmission is possible from the USSR to Poland, Czechoslovakia and East Germany, and also from these countries to the USSR. There is also an improvement in the technical feasibility of exchanging television programs with the West European countries belonging to the Eurovision system. [JPRS]

SUB CODE: 09 / SUBM DATE: none

Card 1/1 45

VAYSBERG, K.M.; ZIZIN, V.G.; Prinsipali uchastiye: TRAVKINA, V.M.; SAFINA,
R.M.

Spectrographic determination of vanadium and nickel in petroleum
products. Zav.lab 26 no.10:1123-1124 '60. (MIRA 13:10)

1. Bashkirskiy nauchno-issledovatel'skiy institut po pereabotke
nefti.

(Vanadium--Spectra) (Nickel---Spectra)
(Petroleum products)

TRAVKINA, V.M., assistant

State of total gas exchange and the characteristics of glycogen distribution in the healing of skin wounds in animals with avitaminosis. A. Trudy KGMI no.10:141-144 '63.

(MIRA 18:1)

1. Iz kafedry obshchey biologii (zav. kafedroy - dotsent G.V. Khomul'ko) Kalininskogo gosudarstvennogo meditsinskogo instituta.

TRAVKINE, I. S.

"Sur les composés nitro sensibles à la lumière. Mémoire VI". Vorozcov, N. N.; Kozlov, V. V.; Travkine, I. S. (p. 522)

SO: Journal of General Chemistry
(Zhurnal Obshchei Khimii) 1939, Volume 9, #6

TRAVLEYEV, A.P. [Travlielev, A.P.]

Forest litter as a structural element of forest biocoenose in the
steppe. Ukr. bot. zhur. 18 no. 2:60-66 '61. (MIRA 14:5)

1. Dnepropetrovskiy gosudarstvennyy universitet, kafedra geobotaniki.
(Forest ecology)

TRAVLEYEV, A.P.

Effect of forest litter on the soil moisture in an artificial
steppe forest. Nauch. dokl. vys. shkoly; biol. nauki no.1:131-
133 1965. (MIRA 18:2)

1. Rekomendovana kafedroy geobotaniki i vyasnikh rasteniy
Dnepropetrovskogo gosudarstvennogo universiteta im. 300-
letiya vossoyedineniya Ukrainy s Rossiyei.

TRAVLEYEV, A.P.

Role of larvae of the march fly *Biblio hortulanus* L. in the decomposition of forest litter in the steppe. Nauch. dokl. vys. shkoly; biol. nauki no. 1:13-15 '61. (MIRA 14:2)

1. Rekomendovana kafedroy geobotaniki Dnepropetrovskogo gosudarstvennogo universiteta im. 300-letiya vossoyedineniya Ukrainy s Rossiyey.
(UKRAINE—MARCH FILES) (FOREST LITTER)

TRAVLEYEV, A.P.

Forest litter as thermal insulator. Pochvovedenie no.10:92-95 '60.
(MIRA 13:10)

1. Dnepropetrovskiy gosudarstvennyy universitet.
(Soil temperature)

TRAVLEYEV, A.P.

Decomposition rate of organic debris from principal tree and shrub species of the Komissarovka cultivated forest in Dnepropetrovsk Province. Nauch. dokl. vys. shkoly; biol. nauki no.4:187-191 '59. (MIRA 12:12)

1.Rekomendovana kafedroy geobotaniki Dnepropetrovskogo gosudarstvennogo universiteta im. 300-letiya vossoyedineniya Ukrainy s Rossiyey.
(Pyatikhatki District--Forest litter)

24.2120

S/057/62/032/006/016/022
B108/B102

AUTHORS: Vanyukov, M. P., Isayenko, V. I., and Travleyev, G. N.

TITLE: Recovery of the electrical strength of a spark gap in repeated discharges

PERIODICAL: Zhurnal tekhnicheskoy fiziki, v. 32, no. 6, 1962, 746 - 752

TEXT: The range in which the voltage of a spark discharge can be controlled and the limiting load of a spark gap were determined. The recovery of a gap as depending on the frequency at which the discharges follow was examined. It was found that in the first 10 - 15 μ sec after the discharge has stopped the disruptive strength of the gap remains virtually unchanged (200 - 400 v). The disruptive voltage is only slightly dependent on the gap length. The subsequent stage of the process is the collapse of the channel sheath and becomes obvious in a rapid rise of the disruptive strength owing to the cooling of the gas. Strength in this stage increases at a rate of 50 - 120 v/ μ sec. The stage with low disruptive voltage is longer in xenon than in air. This is due to the greater mass of the xenon atoms, which sustain the channel after the end of the discharge for a

Card (1/2)

Recovery of the electrical strength ...

3/057/62/032/006/016/022
B108/B102

longer time than in air. Extreme recovery rates (up to $125 \text{ v}/\mu\text{sec}$) at very high frequencies are due to a decrease in energy of each individual discharge and to inhomogeneities in the gap. At too high frequencies, the strength is either lost completely (continuous discharge) or causes an unstable operation. If the gas is blown through the gap the power per unit length of the channel can be increased considerably (up to 400 watt/cm). At high frequencies, however, blowing has no essential effect on recovery. This is obviously due to the fact that the gas at the moment of discharge is in a state of intense movement. There are 6 figures.

SUBMITTED: July 24, 1961

Card 2/2

VANYUKOV, M.P.; ISAYENKO, V.I.; TRAVLEYEV, G.N.

Spark channel ruptures occurring when discharges succeed each other at a high frequency. Zhur.tekh.fiz. 32 no.3:373-374 Mr '62. (MIRA 15:4)

(Electric spark)

ISAYENKO, V.I.; TRAVLEYEV, G.N.

Investigating electric characteristics of pulse tubes under
recurrent discharge conditions. Prib. i tekhn. eksp. 6 no. 6:103-
107 N-D '61. (MIRA 14:11)

1. Gosudarstvennyy opticheskiy institut.
(Electron tubes--Testing)

VANYUKOV, M.P.; ISAYENKO, V.I.; TRAVLEYEV, G.N.

Studying the restoration of the electric strength of the spark
gap under conditions of repeated discharges. Zhur. tekhn. fiz. 32
no.6:746-752 Je '62. (MIRA 15:7)
(Electric discharges)

33152
S/120/61/000/006/021/041
E032/E514

9,4120 (1163)

AUTHORS:

Isayenko, V.I. and Travleyev, G.N.

TITLE:

A study of the electrical characteristics of discharge tubes under recurrent discharge conditions

PERIODICAL:

Pribery i tekhnika eksperimenta, no.6, 1961, 103-107

TEXT:

A block diagram of the apparatus is shown in Fig.1. It consists of two channels, one of which (1-5) controls the operation of the discharge tube (ИЛ), whilst the other (6-11) is used to determine the operational conditions and to restore the breakdown voltage. The spark-gap is switched at a high repetition rate by circuits which ensure that the charging of the capacitor (C) occurs during a small fraction of the repetition period. The capacitor is charged by a triode pulser (РМИ-30). The latter is normally biased off and is gated by 5-20 μ sec controlling pulses. The latter are formed by the master generator 2 from a sinusoidal voltage produced by the master oscillator 1 and are fed through the amplifier 3 to the charging tubes in block 5. Two microseconds after the charging tubes have been cut off, a high-voltage pulse is generated by the

Card 1/4 3

A study of the electrical ...

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S/120/61/000/006/021/041
E032/E514

oscillator 4 and is applied across the discharge tube (M) and initiates the discharge. In the measuring channel the control pulses enter a frequency divider 6 which can select every 2nd, 4th, 8th, 16th or 32nd pulse. A built-in delay circuit can shift these pulses to any required position within the repetition period. They are then fed into 7 which produces additional control pulses which are fed through the amplifier 3 to the charging tubes and produce testing-voltage pulses across the spark-gap. These test pulses have practically no effect on the power conditions in the discharge tube. When the test pulse is applied, the oscillator 4 is off and, therefore, the discharge tube will fire only when the magnitude of the test pulse exceeds the breakdown voltage at the corresponding instant of time. In order to determine the probability distribution of breakdown voltages, the potential difference across the spark-gap is fed to the time selector 8 through the capacitive divider C_1 C_2 . The spread in the breakdown voltages is recorded by the amplitude discriminator 9 and the scalar 10. Circuits are reproduced of the control pulse shaper, the amplifier, the

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A study of the electrical ...

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S/120/61/000/006/021/041

E032/E514

frequency divider and the time selector. The device can be used to measure the working characteristics and the electrical strength recovery of discharge tubes switched at a repetition rate of up to 20 kc/sec at an average power of 1 kW. There are 9 figures and 7 references: 5 Soviet-bloc and 2 non-Soviet-bloc. The English-language reference reads as follows: Ref.1:G.D.McCann, J.J.Clark, Trans.AIEE, 1943, 62, 45.

ASSOCIATION: Gosudarstvennyy opticheskiy institut
(State Optical Institute)

SUBMITTED: April 24, 1961

Card 3/4 3

VANYUKOV, M.P., kand. fiz.-matem.nauk; ISAYENKO, V.I., inzh.; TRAVLEYEV,
G.N., inzh.

Regulation range and load limits of high-pressure stroboscopic
pulse lamps. Svetotekhnika 9 no.8:20-23 Ag '63. (MIRA 16:8)

1. Gosudarstvennyy opticheskiy institut.
(Electric lamps)

L 11067-66 ENT(1) LJP(c) WW/GG

ACC NR: AT6001395

SOURCE CODE: UR/3180/64/009/000/0121/0125

AUTHOR: Vanyukov, M. P. (Candidate of physico-mathematical sciences); Isayenko, V. I.; Travleyev, G. N.

ORG: none

TITLE: Limiting loads of pulse lamps operating under repeated flash conditions

SOURCE: AN SSSR. Komissiya po nauchno fotografii i kinematografii. Uspekhi nauchnoy fotografii, v. 9, 1964. Vysokoskorostnaya fotografiya i kinematografiya (High-speed photography and cinematography), 121-125

TOPIC TAGS: light pulse, spark gap, flash lamp, electric discharge

ABSTRACT: The article deals with the recovery of the breakdown resistance of a spark gap operating under conditions of repeated flashes with a limiting load at a discharge repetition rate of up to 20 kc. In operation with a given flash repetition rate, the limiting power of a pulse lamp can be raised by increasing the capacitance of the working capacitor. When the discharge repetition rate is increased, the power expended in the lamp is determined by two opposite factors: a drop in the energy of the individual flash as a result of the decrease in the breakdown voltage, and an increase in the total number of flashes. For every regime of the discharge circuit, there exists a frequency after the attainment of which the average power dissipated in the lamp becomes limited. At high discharge repetition rates in the air spark gap, a de-

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ACC NR: AT6G01395

crease in the luminous efficiency of the flashes is observed. A difference was noted in the course of the curves representing the recovery of the breakdown resistance for limiting loads of pulse lamps as a function of the flash repetition rate. Strong flushing of the spark gap permits a considerable (fourfold) increase in the power expended in the gap because of a fast cooling of the gas and an equalization of its density. Orig. art. has: 7 figures.

SUB CODE: 20,13

SUBM DATE: 00/

ORIG REF: 003/

OTH REF: 002

Card 2/2

S/057/62/032/003/017/019
B142/B102

AUTHORS: Vanyukov, M. P., Isayenko, V. I., and Travleyev, G. N.

TITLE: Discontinuities in the spark channel which develop at high repetition frequency of discharges

PERIODICAL: Zhurnal tekhnicheskoy fiziki, v. 32, no. 3, 1962, 373-374

TEXT: Irregularities occurring in high-frequency spark discharges in the spark channel were studied. The sparks were photographically examined in an ~~WU~~-500 (ISSh-500) lamp filled with xenon of 4 atm. The discharges were filmed (running speed of film, 40 m/sec). The image scale was 1:1. The frequencies used were the limits at which the studied phenomena appeared. At $f = 400$ cps, the position of the spark channel between the electrodes is stable. The appearance of the channel is determined by shape and arrangement of the electrodes. At $f = 2000$ cps, the channel bends considerably and takes a different position with every discharge. With both frequencies, the mean power was approximately the same (130 watts at 400 cps, 160 watts at 2000 cps). Points of discontinuity appeared in the channel at 3 - 4 kcps. The channel seemed to be interrupted,

Card 1/2

Discontinuities in the spark channel ...

S/057/62/032/003/017/019
B142/B102

individual points of intensive glow became visible. Several discharges may occur in one channel. The point of discharge may shift along the channel with every discharge (velocity of shift = 1-2 m/sec). Sometimes, the discharge zone broadens near the electrodes. An intense afterglow occurs in the discharge zone for 50-200 μ sec. This afterglow is assumed to be caused by metal vapor (evaporation of electrodes) which has a much lower ionization potential than the other gas. The winding path of the spark is explained by clouds of heated gas which form in the channel and along the boundaries of which the spark runs. These local heatings cannot be eliminated between the individual discharges since high pressure gradients are missing, and convection is only sufficient to shift them. The discontinuities in the spark channel are explained by the fact that in gases of poor deionization capacity the current does not flow through the narrow channel but through a wider gas zone. Thus, the current density is lower in these sections and, with it, also the luminous intensity. In air, these phenomena were not observed, even with frequencies of up to 20 kc/sec. There are 3 figures and 1 Soviet reference.

SUBMITTED: June 14, 1961
Card 2/2

VOSKRESENSKIY, V.V., kand. tekhn. nauk; LAZAREV, N.S., inzh.; TRAVLIN, L.V.,
inzh.

Network control arrangements for a model of high-voltage d.c.
power transmission. Vest. elektroprom, 29 no.3:14-18 Mr '58.
(MIRA 11:4)

1. Vsesoyuznyy elektrotekhnicheskiy institut.
(Electric networks) (Electron tubes)

TRAVNICEK

CZECHOSLOVAKIA / Chemical Technology. Chemical Products and
Their Application. Artificial and Synthetic
Fibers

H-32

Abs Jour : Ref. Zhur - Khimiya, No 3, 1958, 9965

Author : Travnicék

Inst : Not given

Title : Protein Fibers.

Orig Pub : Textil (Ceskosl.), 1957, 12, No 3, 109

Abstract : The advantages and disadvantages of protein fibers, particularly of the zein fiber Vicara. See preceding communication in RZhKhim, 1957, 64944.

Card 1/1

5

TRAVNICEK, D.
STADLEROVA, M.: TRAVNICEK, D.

GEOGRAPHY AND GEOLOGY

STADLEROVA, M. The most important endeavors to establish an orographic division of the Czech Lands during the 19th century before the division was made by K. Koristka. p. 303.

ANTHROPOZOIKUM
Vol. 63, No. 4, 1958

Monthly Index of East European Accessions (EEAI) LC, Vol. 8, No. 4, April 1959.

TRAVNICEK, D.

"Map of cultural monuments of Czechoslovakia, 1 : 500,000" by
[dr.] Josef Hobzek, [dr.] Eva Samankova, [dr.] Vaelav Patera.
Reviewed by D.Travnicek. Sbor zem 68 no.3:281-282 '63.

TRAVNICEK, D., STADLEROVA, M.

GEOGRAPHY & GEOLOGY

TRAVNICEK, D. The most important endeavors to establish an orographic division of the Czech Lands during the 19th century before the division was made by K. Koristka. p. 303.

Vol. 63, No. 4, 1958

Monthly Index of East European Accessions (EEAI) LC, Vol. 8, No. 4, April 1959.

TRAVNICEK, D.

"The World's important air lines in passenger transport. "

p. 40(Czechoslovak Geographical Society) Vol. 63, no. 1, 1958 Praha, Czechoslovakia

SO: Monthly Index of East European Accession (EEAI) LC, Vol. 7, no. 5, May 1958

TRAVNICEK, D.

A study of the village of Blons in the Vorarlbert. p. 221.
(Sbornik, Vol. 61, no. 3, 1956, Praha, Czechoslovakia)

SO: Monthly List of East European Accessions (EEAL) LC, Vol. 6, no. 6, June 1957, Uncl.

TRAVNICEK, D.

Seventy years of Karel Uhl; a biographic note. p. 210.
(Sbornik, Vol. 61, no. 3, 1956, Praha, Czechoslovakia)

SO: Monthly List of East European Accessions (EEAL) LC, Vol. 6, no. 6, June 1957, Uncl.

TRAVNICEK, D.

GEOGRAPHY & GEOLOGY

Periodicals: ANTHROPOZOIKUM. Vol. 63, No. 4, 1958.

TRAVNICEK, D. The most important endeavors to establish an orographic division of the Czech Lands during the 19th century before the division was made by K. Koristka. p. 303.

Monthly List of East European Accessions (EEAI) LC Vol. 8, No. 4, April 1959
Unclass.

TRAVNICEK, D.

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